

CLAIMS

We claim:

1. An isolated polypeptide comprising fifteen contiguous amino acid residues of a polypeptide as shown in SEQ ID NO:M, wherein M is an even integer from 2 to 328.
2. The isolated polypeptide of claim 1 which is from 15 to 723 amino acid residues in length.
3. The isolated polypeptide of claim 2, wherein said at least fifteen contiguous amino acid residues of SEQ ID NO:M are operably linked via a peptide bond or polypeptide linker to a second polypeptide selected from the group consisting of maltose binding protein, an immunoglobulin constant region, a polyhistidine tag, and a peptide as shown in SEQ ID NO:329.
4. The isolated polypeptide of claim 1 comprising at least 30 contiguous residues of SEQ ID NO:M.
5. The isolated polypeptide of claim 1 comprising at least 47 contiguous residues of SEQ ID NO:M.
6. An isolated, mature protein encoded by a sequence selected from the group consisting of SEQ ID NO:N, wherein N is an odd integer from 1 to 327.
7. An isolated polynucleotide comprising a sequence of nucleotides as shown in SEQ ID NO:N, wherein N is an odd integer from 1 to 327.
8. An expression vector comprising the following operably linked elements:
 - a transcription promoter;
 - a DNA segment encoding a polypeptide as shown in SEQ ID NO:M, wherein M is an even integer from 2 to 328; and
 - a transcription terminator.
9. A cultured cell comprising the expression vector of claim 8.

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SUB
A1

- Su^3
 A_2

19. A method of detecting protein secretion from a cell or tissue comprising detecting a mature MSP selected from the group consisting of SEQ ID NO:M, wherein M is an even integer from 2 to 328 in conditioned media or membrane extracts.

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